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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,865	07/02/2001	Giorgio Trapani	M0023/7005	1378
22832	7590	01/18/2006	EXAMINER	
KIRKPATRICK & LOCKHART NICHOLSON GRAHAM LLP (FORMERLY KIRKPATRICK & LOCKHART LLP) 75 STATE STREET BOSTON, MA 02109-1808			BOUTSIKARIS, LEONIDAS	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/897,865	Applicant(s) TRAPANI ET AL.	
	Examiner Leo Boutsikaris	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 23 is/are allowed.
 6) ☒ Claim(s) 1, 2, 5-22 and 24-27 is/are rejected.
 7) ☒ Claim(s) 3 and 4 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 02 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/9/04; 9/21/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 6-9, 12-14, 16-21, 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by anticipated by Sahouani (US 2003/0184862).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 17, 24, 26-27, Sahouani discloses an optical stack 200 comprising an intrinsic polarizer in the form of dichroic polarizer 204, an optional adhesive 206 disposed on a second (i.e. bottom) surface and a first optically functionally coating 202 disposed on a first (i.e., top) surface of the polarizer 204 (Fig. 2 and [0048]). It is noted that the above optical stack 200 lacks a heat and moisture resistant protective coating and a support layer, since the only layers

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constituting the optical stack are the ones shown in Fig. 2, and these layers do not include any supporting layer or any additional protective layer (the adhesive layer is optional).

Regarding claims 2, 25, optical stack 200 may be bonded with a second optically functional coating, such as a retardation film, on the side opposite to the first optically functional coating, optionally without the use of the adhesive 206 (see bottom 9 lines of [0048]).

Regarding claims 6-8, in one embodiment a reflector or transflector coating 306, which may comprise metal, may be disposed on the polarizer 302 without using adhesive layer 304 (Fig. 3, [0050]).

Regarding claim 9, the first optically functional coating comprises an AR film ([0048]).

Regarding claims 12-13, the first optically functional coating may comprise a retarder or a diffuser ([0053]).

Regarding claim 14, the first optically functional coating may reduce glare (see middle of [0048]).

Regarding claim 16, an electrode may be coated on the polarizer 204 (see middle of [0047]).

Regarding claim 18, the polarizer is attached to a liquid crystal display cell by the layer of adhesive ([0048]).

Regarding claims 19-20, the adhesive layer comprises a pressure sensitive adhesive or a diffuse adhesive ([0048]).

Regarding claim 21, in one disclosed Example, the thickness of the polarizer is about 13 microns ([0077]). It is noted that the optically functional coating formed on top of the polarizer

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has thickness typically on the order of nm, making the total thickness of the optical stack less than 25 microns.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sahouani (US 2003/0184862) in view of Omar (US 6,433,846).

Sahouani discloses all the limitations of the above claim except for teaching that the first optically functional coating is a hardcoat. Omar discloses a LCD assembly, wherein it is taught that a hardcoat may be provided in the LCD assembly, especially the touchscreen (lines 17-26, col. 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a hardcoat on the first surface of the polarizer of Sahouani, which is used in conjunction with LCDs, as taught by Omar, for additional protection of the LCD assembly.

Claims 10-11, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sahouani (US 2003/0184862).

Regarding claims 10-11, Sahouani discloses all the limitations of said claims except for teaching that the AR film comprises a plurality of polymer layers or inorganic layers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form

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the AR coating on the polarizer using a plurality of polymer or inorganic layers, since Official Notice is taken that it is well known in the thin film fabrication art to use multi-layer optical stacks for making AR films, since the use of multiple layers and the interference effects resulting therefrom allows for a greater flexibility in designing an AR film with desired reflection properties.

Regarding claim 22, Sahouani discloses all the limitations of said claim except for teaching that the thickness of the optical stack is about 25 microns. As described above, Sahouani teaches that in one embodiment the thickness of the optical stack is about 13-14 microns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the thickness of the optical stack about 25 microns, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235. A thicker optical stack is easier to handle and more resistant to external environmental conditions.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sahouani (US 2003/0184862) in view of Nishikouji (US 6,330,108).

Sahouani discloses all the limitations of the above claim except for teaching that the first optically functional coating is a wide view film. Nishikouji discloses a LCD assembly, wherein it is taught that a wide view film may be provided in the LCD assembly (lines 36-43, col. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a wide view film on the first surface of the polarizer of Sahouani, which is used in

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conjunction with LCDs, as taught by Nishikouji, for widening the viewing angle (see line 43, col. 1 in Nishikouji).

Response to Arguments

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 23 is allowed.

Claims 3-4, 23 are allowable over the prior art of record for at least the reason that even though the prior art discloses thin intrinsic polarizers, which stand alone without the need of protective coatings or support layers, said intrinsic polarizers having optically functional coatings disposed on both sides, the prior art fails to teach or reasonably suggest an optical stack wherein the intrinsic polarizer is a K-type polarizer or a KE polarizer, as set forth by the claimed combination.

Jones (US 6,949,207, line 7, col. 13) and Bennett (US 5,666,223, lines 16-24, col. 7) disclose a K-type polarizer that includes a support layer. Miyatake (US 6,683,717) discloses a dichroic polarizer having a transparent protective layer on one or both sides for protection against heat and humidity (lines 23-25, col. 3). Isozaki (US 6,337,369) discloses a polarizing

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film of a polyvinyl alcohol derivative that is laminated with a protective film (lines 3-9, col. 5).


Downey (US 4,818,624, lines 7-11, col. 7) and Imada (US 4,293,585, lines 11-23, col. 1)

disclose PVA polarizing films that are supported by a reinforcing substrate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Leo Boutsikaris whose telephone number is 571-272-2308.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo Boutsikaris, Ph.D., J.D.
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January 17, 2006


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PRIMARY EXAMINER